

In the Claims:

1. (Currently Amended) A semiconductor device comprising:
a semiconductor substrate;
a first insulating film formed on an upper side of said semiconductor substrate, said first insulating film containing ladder-shaped siloxane hydride;
and
a second insulating film disposed adjacent to said first insulating film, said second insulating film containing oxygen and silicon as a constituent element~~element~~.

2. (Canceled)

3. (Original) The semiconductor device according to claim 1, wherein said second insulating film comprises a compound selected from the group consisting of SiO₂, SiOC, SiON and SiOF.

4. (Original) The semiconductor device according to claim 1, further comprising a metal interconnect embedded in a multilayer structure, said multilayer structure comprising said first insulating film and said second insulating film.

5. (Original) The semiconductor device according to claim 1, wherein said semiconductor device is free of a guard ring.

6. (Original) The semiconductor device according to claim 1, wherein said ladder-shaped siloxane hydride is L-OxTM.

7. (Original) The semiconductor device according to claim 1, wherein said ladder-shaped siloxane hydride is a film being formed by being baked at a temperature within a range of from 200 degree C to 400 degree C.

8. (Original) The semiconductor device according to claim 1, wherein said ladder-shaped siloxane hydride has a film density within a range of from 1.50 g/cm^3 to 1.58 g/cm^3 .

9. (Original) The semiconductor device according to claim 1, wherein said ladder-shaped siloxane hydride has a refraction index at a wavelength of 633 nm within a range of from 1.38 to 1.40.

10. (Original) A method for manufacturing a semiconductor device, comprising:
forming a first insulating film containing ladder-shaped siloxane hydride on a semiconductor substrate; and
forming a second insulating film adjacent to said first insulating film via a plasma CVD utilizing a source gas containing oxygen.

11. (Original) The method according to claim 10, wherein said source gas contains a gas selected from a group consisting of O_2 , N_2O , NO , CO , CO_2 , H_2O , tetraethoxysilane (TEOS) and dimethylsilane.

12. (Original) The method according to claim 10, wherein said source gas further comprises a silicon compound.

13. (Original) The method according to claim 12, wherein said silicon compound is selected from a group consisting of SiH_4 (monosilane), monomethylsilane, dimethylsilane, trimethylsilane, tetramethylsilane, tetraethoxysilane (TEOS) dimethyldimethoxysilane and tetravinylsilane.

14. (Original) The method according to claim 10, wherein said second insulating film comprises a compound selected from the group consisting of SiO_2 , SiOC , SiON and SiOF .

15. (Original) The method according to claim 10, further comprising:

after forming said second insulating film, selectively removing a multilayer films to form an interconnect groove, said multilayer films comprising said second insulating film and said first insulating film; and

filling said interconnect groove with a metal to form a metal interconnect.

16. (Original) The method according to claim 15, wherein said ladder-shaped siloxane hydride is formed by being baked at a temperature within a range of from 200 degree C to 400 degree C during said forming said first insulating film.